In the Claims:

Amend the claims such that they read, as follows:

1. – 36. (cancelled)

37. (original) An electronic circuit, comprising:

a voltage reference source for providing a first reference voltage and a second reference voltage, the first reference voltage more positive that the second reference voltage;

a signal generator for generating a reference signal that varies between a maximum voltage that is more positive that the first reference voltage and a minimum voltage that is less positive than the second reference voltage;

a first comparator connected to the signal generator and the voltage reference source so as to compare the reference signal to the first reference voltage and provide as an output a first series of output pulses each of which lasts during a discrete interval during which the reference signal is more positive than the first reference voltage; and

a second comparator connected to the signal generator and the voltage reference source so as to compare the reference signal to the second reference voltage and provide as an output a second series of output pulses each of which lasts during a discrete interval during which the reference signal is less positive than the second reference voltage.

38. (original) The electronic circuit as defined in claim 37, wherein the voltage reference source comprises a voltage divider connected between the first DC

input terminal and the second DC input terminal, the voltage divider providing the first reference voltage and the second reference voltage;

39. (original) The electronic circuit as defined in claim 38, wherein the voltage divider comprises a resistive voltage ladder.

40. (original) The electronic circuit as defined in claim 39, wherein the resistive voltage ladder further provides a DC-offset reference voltage between the first reference voltage and the second reference voltage and the electronic circuit further comprises a voltage follower connected between the resistive voltage ladder and the signal generator so as to provide the DC-offset reference voltage to the signal generator..

41. (original) The electronic circuit as defined in claim 37, wherein the output pulses are positive going pulses.

42. (original) The electronic circuit as defined in claim 41, wherein the voltage reference source comprises a voltage divider connected between the first DC input terminal and the second DC input terminal, the voltage divider providing the first reference voltage and the second reference voltage;

43. (original) The electronic circuit as defined in claim 42, wherein the voltage divider comprises a resistive voltage ladder.

44. (original) The electronic circuit as defined in claim 43, wherein the resistive voltage ladder further provides a DC-offset reference voltage between the first reference voltage and the second reference voltage and the electronic circuit further comprises a voltage follower connected between the resistive voltage ladder and the signal generator so as to provide the DC-offset reference voltage to the signal generator.

45. (original) An electronic circuit, comprising:

a voltage reference source for providing a first reference voltage and a second reference voltage, the first reference voltage more positive that the second reference voltage;

a signal generator for generating a reference signal that varies between a maximum voltage that is more positive that the first reference voltage and a minimum voltage that is less positive than the second reference voltage;

a first comparator connected to the signal generator and the voltage reference source so as to compare the reference signal to the first reference voltage and provide as an output a first series of output pulses each of which lasts during a discrete interval during which the reference signal is more positive than the first reference voltage; and

a second comparator connected to the signal generator and the voltage reference source so as to compare the reference signal to the second reference voltage and provide as an output a second series of output pulses each of which lasts during a discrete interval during which the reference signal is more positive than the second reference voltage.

46. (original) The electronic circuit as defined in claim 45, wherein the voltage reference source comprises a voltage divider connected between the first DC input terminal and the second DC input terminal, the voltage divider providing the first reference voltage and the second reference voltage;

47. (original) The electronic circuit as defined in claim 46, wherein the voltage divider comprises a resistive voltage ladder.

48. (original) The electronic circuit as defined in claim 47, wherein the resistive voltage ladder further provides a DC-offset reference voltage between the first reference voltage and the second reference voltage and the electronic circuit further comprises a voltage follower connected between the resistive voltage ladder and the signal generator so as to provide the DC-offset reference voltage to the signal generator.

49. (original) The electronic circuit as defined in claim 45, wherein the output pulses are positive going pulses.

50. (original) The electronic circuit as defined in claim 49, wherein the voltage reference source comprises a voltage divider connected between the first DC input terminal and the second DC input terminal, the voltage divider providing the first reference voltage and the second reference voltage;

51. (original) The electronic circuit as defined in claim 50, wherein the voltage divider comprises a resistive voltage ladder.

52. (original) The electronic circuit as defined in claim 51, wherein the resistive voltage ladder further provides a DC-offset reference voltage between the first reference voltage and the second reference voltage and the electronic circuit further comprises a voltage follower connected between the resistive voltage ladder and the signal generator so as to provide the DC-offset reference voltage to the signal generator.